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**BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Paper No. 11

Application Number: 09/419,523
Filing Date: October 18, 1999
Appellant(s): PETERSEN, PAUL

Fred G. Pruner, Jr., Reg. No. 40,779
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 7 April 2003.

***(1) Real Party in Interest***

A statement identifying the real party in interest is contained in the brief.

***(2) Related Appeals and Interferences***

The brief does not contain a statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief. Therefore, it is presumed that there are none. The Board, however, may exercise its discretion to require an explicit statement as to the existence of any related appeals and interferences.

***(3) Status of Claims***

The statement of the status of the claims contained in the brief is correct.

***(4) Status of Amendments After Final***

No amendment after final has been filed.

***(5) Summary of Invention***

The summary of invention contained in the brief is correct.

***(6) Issues***

The appellant's statement of the issues in the brief is substantially correct. The changes are as follows:

**A. Whether claims 1-11 are patentable under 35 USC 103(a) in view of Arai and Yoshizawa et al.**

**B. Whether claims 12-17 are patentable under 35 USC 103(a) in view of Arai and Yoshizawa et al.**

**C. Whether claims 18-20 are patentable under 35 USC 103(a) in view of Arai and Yoshizawa et al.**

**D. Whether claims 21-31 are patentable under 35 USC 103(a) in view of Arai and Yoshizawa et al.**

**E. Whether claims 32-37 are patentable under 35 USC 103(a) in view of Arai and Yoshizawa et al.**

**F. Whether claims 38-40 are patentable under 35 USC 103(a) in view of Arai and Yoshizawa et al.**

***(7) Grouping of Claims***

Appellant's brief includes a statement that claims 1-40 do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

***(8) Claims Appealed***

The copy of the appealed claims contained in the Appendix to the brief is correct.

***(9) Prior Art of Record***

| | | |
|---|---|---|
| 5,280,599 | Arai | 1-1994 |
| 5,787,464 | Yoshizawa et al | 7-1998 |
| 5,446,860 | Dresser et al | 8-1995 |
| 5,860,134 | Cowell | 1-1999 |
| 5,129,069 | Helm et al | 7-1992 |

***(10) Grounds of Rejection***

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-40 are rejected under 35 U.S.C. 103(a). This rejection is set forth in prior Office Action, Paper No. 6, reprinted below for convenience:

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-2, 5, 8-9, 11-13, 16-22, 25, 28-29, 31-33, and 36-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arai (US Patent # 5,280,599) and Yoshizawa et al (US Patent # 5,787,464).

With respect to claims 1, 12, 18, 21, 32, and 38, examiner notes that the definition of "memory configuration information," in page 5 of the instant specification and shown in figure 3, is defined as, "type, amount, and operating characteristics of memory." "Residual memory capacity" is defined as the difference between existing memory and maximum possible memory expansion. Obtaining memory configuration information of a computer system, or, the actual memory of the system, determining a memory capacity of the system, or, the possible memory allowed in the system, and determining memory upgrade options based on a residual memory capacity of the

computer system is disclosed in column 2, lines 46-60. Examiner notes that "upgrade options" and "memory characteristics" are very broad in scope, and have been interpreted as such by examiner. The difference between the claims and Arai is the explicit recitation of expanding/replacing the number of memory devices. Yoshizawa et al disclose expanding and replacing the number of memory devices in the abstract. Accordingly, it would have been obvious to one of ordinary skill in the art at the time of the invention, having the teachings of Arai and Yoshizawa et al before him/her, to utilize the expansion/replacement of Yoshizawa et al in the system of Arai as it allows for on-line expansion and replacement of memory modules, as disclosed by Yoshizawa et al in the abstract.

With respect to claims 2, 13, 19, 22, 33, and 39, the act of obtaining memory configuration information comprising obtaining an indication of an installed system memory amount is disclosed by Arai in column 2, lines 46-60.

With respect to claims 5, 16, 23, and 36, the act of obtaining memory configuration information comprising accessing a non-volatile storage device is disclosed by Arai in figure 3 as ROM/BIOS, and further discussed in column 3, lines 53-59.

With respect to claims 8-9, 17, 20, 28-29, 37, and 40, obtaining the maximum number of memory devices and maximum amount of memory for the computer system are inherent, as the number of address bits, according to the binary number system upon which computers operate, indicate the "amount of memory" which includes the

number of "devices." As evidence of inherency, examiner urges applicant to review Dresser et al (discussed below) in column 4, line 66 into column 5, line 1.

With respect to claims 11 and 31, providing memory upgrade options to a user is disclosed in column 6, line 45, which discusses a "window" for such information.

Examiner notes that the same obviousness statement and motivation is applicable to all claims noted supra as stated supra with respect to the claims upon which they depend.

Claims 3, 14, 15, 23, 34, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arai, Yoshizawa et al, and Helm et al (US Pat. # 5,129,069).

With respect to claims 3, 14, and 15, Arai and Yoshizawa et al disclose the claimed invention upon which the instant claims depend. The difference between the instant claim and Arai and Yoshizawa et al is that Arai and Yoshizawa et al, although disclosing a memory amount as shown supra, do not specifically disclose the configuration information comprising a number of memory module sockets. Helm et al, however, disclose memory module "slots," which examiner interprets as "sockets," in figure 1. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, having the teachings of Arai, Yoshizawa et al, and Helm et al before him/her, to obtain the "memory amount" disclosed by Arai and Yoshizawa, based on the number of "sockets" as disclosed in Helm et al, because, as discussed supra with respect to claims 8-9, 17, and 20, the amount of memory in or available to the system is inherently dependent upon the number of address bits used in the system.

Claims 4 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arai, Yoshizawa et al, and Cowell (US Pat. # 5,860,134).

Arai discloses the claimed invention upon which the instant claims depend. The difference between the instant claim and Arai and Yoshizawa et al is that the memory configuration information comprises an operating speed of the installed system memory. However, Cowell discloses a "type detection," which includes system bus speeds, in column 8, line 35 into column 9, line 35. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, having the teachings of Arai, Yoshizawa et al, and Cowell before him/her, to utilize the type detection of Cowell in the system of Arai and Yoshizawa et al because the type detection signal allows the system to coordinate memory speeds according to the first and second type signals, as disclosed by Cowell, in column 9, lines 34-36, which increase the flexibility of the system, as made hackneyed in the state of the art.

Claims 6, 7, 10, 26, 27, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arai, Yoshizawa et al, and Dresser et al (US Pat. # 5,446,860).

With respect to claims 6, 7, 10, 26, 27, and 30, Arai and Yoshizawa et al disclose the claimed invention upon which the instant claims depend. The difference between the instant claims and Arai and Yoshizawa et al is that the act of accessing a non-volatile storage device comprises accessing a serial presence detect device. The system of Arai and Yoshizawa et al operates serially. If a program to detect presence of a device is stored in ROM, as it is in BIOS, then it is, technically, a serial presence detect device. However, assuming *arguendo,* that the above is not the case, Dresser et

al disclose serial presence detect data in figure 4. Inherently, if there is serial presence detect data, there is a serial presence detect device to obtain said data, as computers need to be told what to do, so to speak. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, having the teachings of Arai, Yoshizawa et al, and Dresser et al before him/her, to use the serial presence detect device to detect the serial presence of devices in the Arai and Yoshizawa et al system using the device of Dresser et al, because in search for the maximum amount of memory, the presence detect bits denote the maximum amount of memory, as disclosed by Dresser et al in column 4, lines 65-68. Examiner notes that SIMMs, as explicitly disclosed in Dresser et al, are dynamic random access memory devices and are inherently plugged into "slots," by definition. Applicant is invited to see figure 3 of Dresser et al and column 4, line 65 into column 6, line 65 for further discussion of same.

***(11) Response to Argument***

**A. Whether claims 1-11 are patentable under 35 USC 103(a) in view of Arai and Yoshizawa et al.**

In response to appellant's argument that examiner fails to establish a prima facie case of obviousness, as the prior art does not teach all the claim limitations, examiner respectfully disagrees. As may be see supra with respect to the rejections of independent claims 1, 12, 18, 21, 32, and 38, examiner specifically notes that the terminology used by appellant in the instant claims is very broad in scope, and has been interpreted as such with respect to the limitations. "Obtaining memory configuration information of a computer system, the computer system including memory devices," is

disclosed in Arai, as discussed supra, in column 2, lines 45-60, as, "A **computer system** provided **with** a standard **memory** and an expanded and extended memory which can be used in a **plurality of configurations**..." (emphasis added). These plurality of memory configurations, "specify a configuration of use and capacity of the memory." (also column 2, lines 45-60). Examiner found this particular quote to anticipate appellant's limitation of, "Determining a memory capacity of the computer system," as it is pretty much word-for-word. "Upgrade options," as claimed by appellant, are also disclosed by Arai in column 2, lines 45-60 as well, as, "...allowing access to the expanded and extended memory having the specified configuration of use and memory capacity." Now, the last part of that final limitation in the instant independent claims is the explicit recitation of expanding "the number of devices or modules based on a residual memory capacity." As may be seen from the rejection supra, examiner clearly states that Arai does not explicitly recite that part of the claim limitation. However, examiner does assert that Yoshizawa et al do, indeed, explicitly recite the instant limitation. As also discussed in the rejection supra, appellant defines "residual memory capacity" as the difference between existing memory and maximum possible memory expansion in lines 4-6 of the instant specification, for example. Yoshizawa et al disclose just this limitation in the abstract, as discussed in the rejection supra, as "Memory may be expanded in computer system that do not have an open memory slot by replacing the installed memory with a memory having a larger capacity." This clearly involves "expanding and replacing the number of devices or modules," as claimed by appellant. This can be further seen in figure 3 and column 3, lines 19-52 of Yoshizawa et al.

This brings us to appellant's argument that examiner has not provided any suggestion and/or motivation to combine the references discussed supra. Examiner again respectfully disagrees, and would refer appellant to the rejection supra, in which the abstract of Yoshizawa et al is cited as motivation to combine the system of Yoshizawa et al with the system of Arai as Yoshizawa et al, "...supports memory insertion and extraction while being on-line." In other words, and as appellant has pointed out in appellant's instant brief, on page 9, lines 12-13, that "Yoshizawa [et al] teach[es] a computer system in which memory devices can be installed while the power to the computer system remains turned on." Not having to turn a system off to expand, replace, or reconfigure memory is, indeed, a motivating factor to combine the references.

**B. Whether claims 12-17 are patentable under 35 USC 103(a) in view of Arai and Yoshizawa et al.**

With respect to appellant's argument that Arai nor Yoshizawa et al teach a "programmable control device" to perform the claimed limitations' actions, examiner notes that this particular feature is merely in the preamble of the claim. However, even though the limitation, specifically, "programmable control device," is in the preamble, examiner asserts that Arai does, indeed, disclose just that as, "setting control means for controlling the expanded and extended memory arrangement setting means." All devices in a computer system are "programmable." As mentioned in the rejection discussed supra, a computer must inherently be told what to do by "programming" it. Also, "configuration routine[s] that include instructions to determine memory "upgrade

options" are asserted by examiner as inherent for the same reasons – a computer must, inherently, be told what to do.

Examiner notes that appellant argument is the same as that discussed supra with respect to motivation, and is addressed therewith.

**C. Whether claims 18-20 are patentable under 35 USC 103(a) in view of Arai and Yoshizawa et al.**

With respect to appellant's argument that Arai and Yoshizawa et al fail to disclose a "configuration routine," examiner respectfully disagrees, and refers appellant to the discussion supra with respect to a "programmable control device." Arai discloses configuration as discussed supra with respect to the rejection of independent claim 18. A computer must inherently be told what to do by "programming" a "routine."

Examiner notes that appellant argument is the same as that discussed supra with respect to motivation, and is addressed therewith.

**D. Whether claims 21-31 are patentable under 35 USC 103(a) in view of Arai and Yoshizawa et al.**

Examiner notes that appellant argument is the same as that discussed supra with respect to motivation and limitation anticipation, and is addressed therewith.

**E. Whether claims 32-37 are patentable under 35 USC 103(a) in view of Arai and Yoshizawa et al.**

Examiner notes that appellant argument is the same as that discussed supra with respect to motivation and limitation anticipation, and is addressed therewith.

**F. Whether claims 37-40 are patentable under 35 USC 103(a) in view of Arai and Yoshizawa et al.**

Examiner notes that appellant argument is the same as that discussed supra with respect to motivation and limitation anticipation, and is addressed therewith.

The cited prior art of record, as discussed supra with respect to the instant claim limitations in light of their broad scope, meets the requirements of 35 USC 103(a) and a prima facie case has been established by examiner.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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